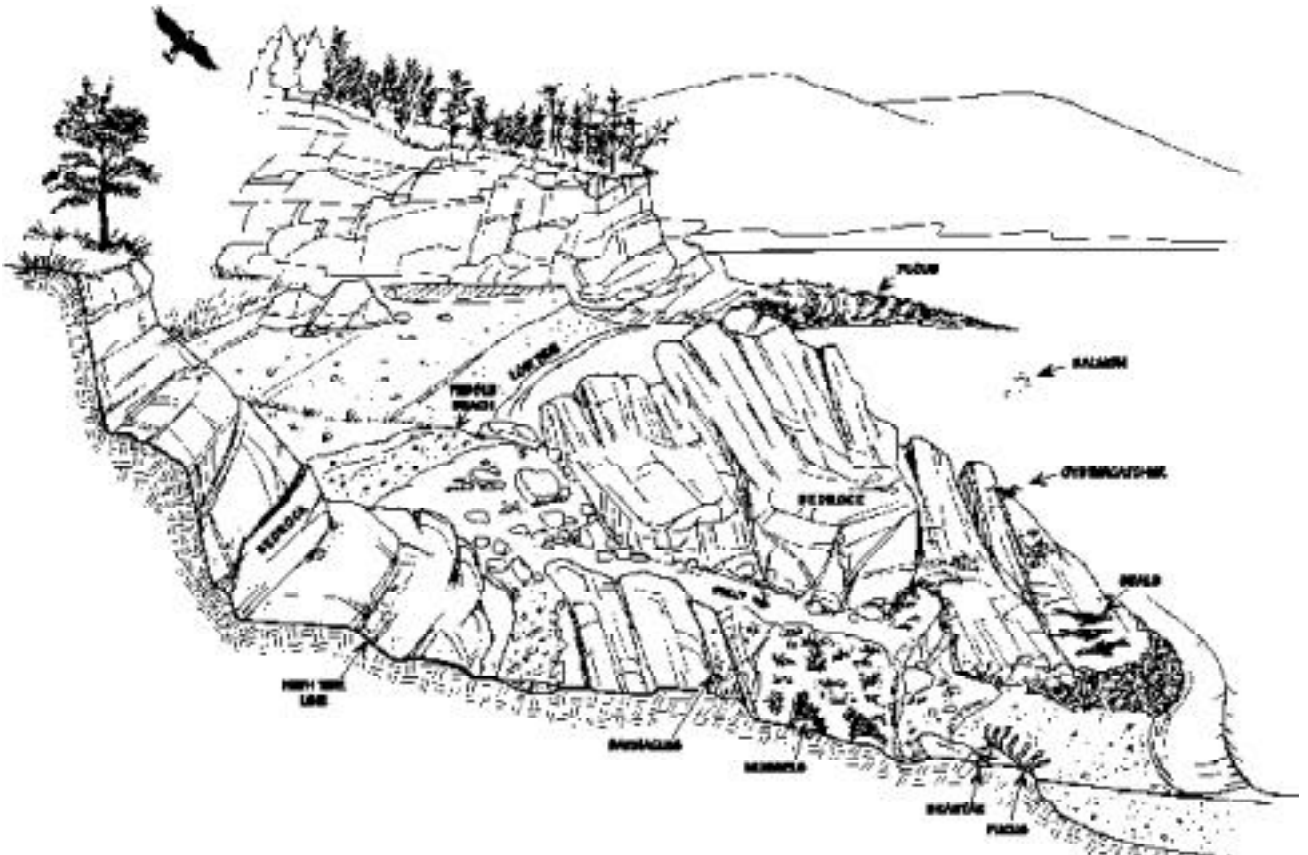
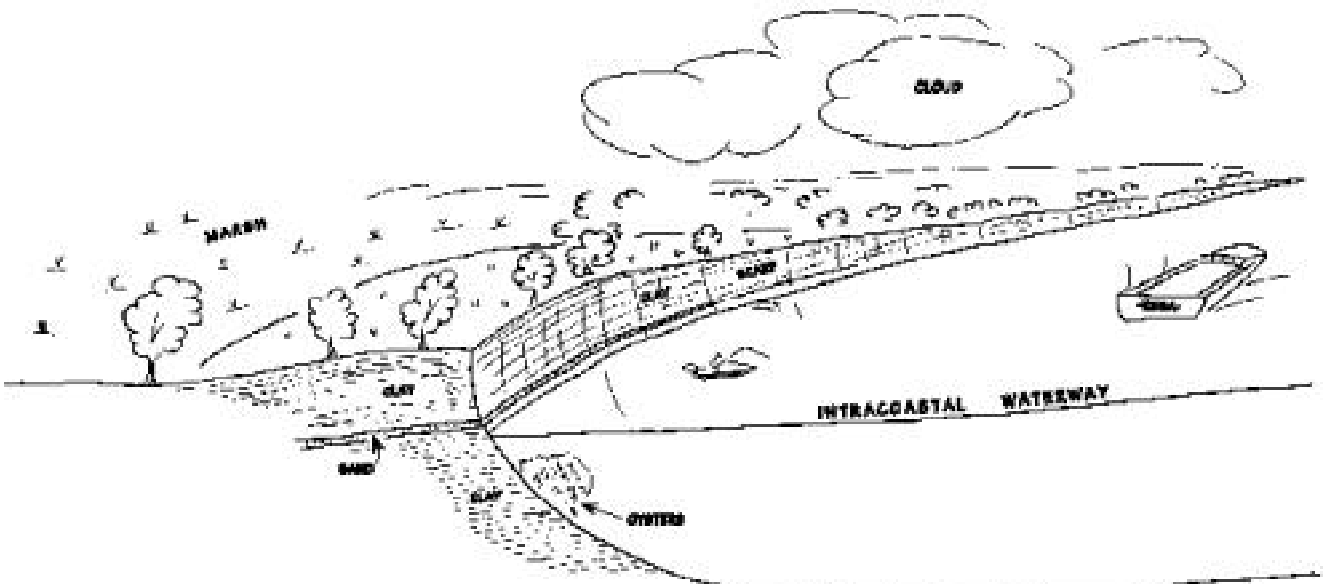
Sheltered Rocky Shores




CLOUD
MARSH
CLAY
SAND
CLAY
OYSTERS
INTRACOASTAL WATERWAY

INTERTIDAL

Sheltered Rocky Shores and Scarps

Description

- Sheltered rocky shores are characterized by a rocky substrate that can vary widely in permeability. Of particular concern are rocky shores that have a semi-permeable veneer of angular rubble overlying the bedrock.
- Sheltered clay scarps are characterized by a steep, usually vertical scarp in hard-packed and stiff clay. Vegetation usually occurs landward of the scarp.

Predicted oil behavior

- Oil will adhere readily to dry, rough, rocky surfaces, particularly at the high-tide line, forming a distinct oil band.
- The lower intertidal zone of rocky shores is usually algae-covered and stays wet, preventing oil from adhering.
- Oil will not adhere to the wet clay sediment surface, but could penetrate dry sediment.
- Stranded oil will persist because of the low-energy setting.

Response Considerations

- Low-pressure flushing of rocky shores at ambient temperatures is most effective when the oil is fresh and still liquid.
- Extreme care must be taken during flushing operations in the upper intertidal zone to prevent oily effluents from impacting biologically rich lower tidal levels.
- Do not cut oiled, attached algae; use sorbents to recover oil as it is remobilized by tidal action.
- Where the high-water area of scarps is accessible, it might be feasible to manually remove heavy oil accumulations and oiled debris.
- The muddy substrate of scarps cannot support heavy equipment, and even foot traffic could disrupt the sediments and mix oil deeper.

Sheltered Rocky Shores and Scarps

Oil Category Descriptions

I – Gasoline products
II – Diesel-like products and light crudes
III – Medium grade crudes and intermediate products
IV – Heavy crudes and residual products
V – Non-floating oil products

The following categories are used to compare the relative environmental impact of each response method in the specific environment and habitat for each oil type. The codes in each table mean:

A = The least adverse habitat impact.
B = Some adverse habitat impact.
C = Significant adverse habitat impact.
D = The most adverse habitat impact.
I = Insufficient information - impact or effectiveness of the method could not be evaluated.
— = Not applicable.

Response Method	Oil Category I	II	III	IV	V
Natural Recovery	A	A	B	B	B
Barriers/Berms	–	–	–	–	–
Manual Oil Removal/Cleaning	–	C	B	C	C
Mechanical Oil Removal	–	–	–	–	–
Sorbents	A	A	B	C	C
Vacuum	–	B	B	B	C
Debris Removal	–	A	A	A	A
Sediment Reworking/Tilling	–	–	–	–	–
Vegetation Cutting/Removal	–	–	D	D	D
Flooding (deluge)	–	A	A	B	C
Low-pressure, Ambient Water Flushing	–	A	A	B	C
High-pressure, Ambient Water Flushing	–	C	B	B	C
Low-pressure, Hot Water Flushing	–	–	D	D	D
High-pressure, Hot Water Flushing	–	–	D	D	D
Steam Cleaning	–	–	D	D	D
Sand Blasting	–	–	D	D	D
Solidifiers	–	C	C	–	–
Shoreline Cleaning Agents	–	–	B	B	B
Nutrient Enrichment	–	A	B	C	C
Natural Microbe Seeding	–	I	I	I	I
In-situ Burning	–	D	C	C	C

Consult the *Environmental Considerations for Marine Oil Spill Response* document referenced on page 5 before using this table.